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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/533,586	05/03/2005	Takeshi Chonan	050200	4121

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EXAMINER	
YOON, TAE H	

ART UNIT	PAPER NUMBER
1796	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/533,586	CHONAN ET AL.	
	Examiner	Art Unit	
	Tae H. Yoon	1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *5/3/05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 5-9 and 10-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The fine boride particles in a solvent of claims 5-9 and 11 are dependent on either claim 3 or 4 wherein a solid (coated or thin film) member (inherently contains a binder also) is claimed, and it is improper and indefinite since the claimed dispersion would not have the recited properties in claims 1 and 2 and since the dependent claim carries with it all limitations of the independent claim along with the recited particular narrower limitation. Said dispersion fails to further limit said solid (coated or thin film) member of claims 1 and 2. For example, said claim 5 seemed to be an independent claim rather than dependent claim. Claims 10 and 12-16 claim a solid (coated or thin film) member obtained from the dispersion of claims 5-9 and 11 which, in turn, are dependent on a solid (coated or thin film) member of claims 1 and 2. Thus, the claimed fomat, a solid-a solution-a solid, is like a merry-go-round, and it is confusing and indefinite.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140

F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-16 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-12 of U.S. Patent No. 6,319,613. Although the conflicting claims are not identical, they are not patentably distinct from each other because the film of said patent inherently possesses the instantly recited properties since the same fine particles are used, and applicant has a burden to show otherwise, especially the recited properties are expressed in terms of applicant's own formula, and not well known standard formula.

Claims 1-6, 13 and 14 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-12 of U.S. Patent No. 7,238,418. Although the conflicting claims are not identical, they are not patentably distinct from each other because the film of said patent inherently possesses the instantly recited properties since the same fine particles are used, and applicant has a burden to show otherwise, especially the recited properties are expressed in terms of applicant's own formula, and not well known standard formula.

Claims 1-6, 13 and 14 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 5-12 of U.S. Patent No. 7,244,376. Although the conflicting claims are not identical, they are not patentably distinct from each other because the film of said patent inherently possesses the instantly recited properties since the same fine particles are used, and applicant has a burden to show otherwise, especially the recited properties are expressed in terms of applicant's own formula, and not well known standard formula.

Claims 1-4 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-6 of copending Application No. 10/524,635 (US 2006/0116461 A). Although the conflicting claims are not identical, they are not patentably distinct from each other because the heat shielding material (layer) of said copending Application inherently possesses the instant properties since the same fine particles are used, and applicant has a burden to show otherwise, especially the recited properties are expressed in terms of applicant's own formula, and not well known standard formula.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims 1-4 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 2 and 5 of copending Application No. 10/531,075 (US 2006/0008639 A). Although the conflicting claims are

not identical, they are not patentably distinct from each other because the heat shielding material (layer) of said copending Application inherently possesses the instant properties since the same fine particles are used, and applicant has a burden to show otherwise, especially the recited properties are expressed in terms of applicant's own formula, and not well known standard formula.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims 1-4 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-5 of copending Application No. 10/480,940 (US 2004/0131845 A). Although the conflicting claims are not identical, they are not patentably distinct from each other because the heat shielding material of said copending Application inherently possesses the instant properties since the same fine particles are used, and applicant has a burden to show otherwise, especially the recited properties are expressed in terms of applicant's own formula, and not well known standard formula.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-8 and 13-16 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Takeda et al (US 6,319,613).

Takeda et al teach a solution comprising solvent and fine particles of hexaboride and a radiation shielding film thereof in abstract and table 1. Said fine particles of hexaboride have a diameter not exceeding 200 nm (col. 4, lines 18-26). Use of additional fine particles such as TiO_2 or ZrO_2 is taught at col. 4, lines 27-31. The instant transmittance at different wave lengths is taught at col. 3, lines 48-56.

Thus, the instant invention lacks novelty.

Claims 1-16 are rejected under 35 U.S.C. 103(a) as obvious over Takeda et al (US 6,319,613).

The instant invention further recites amounts of a compound (ratio of a compound and boride particles) over Takeda et al.

It would have been obvious to one skilled in the art at the time of invention to utilize the instant amount of a compound in the composition of Takeda et al since Takeda et al teach employing such compound, especially in view of the instant broad range, 0.1% to 250%, absent showing otherwise.

Claims 1-4 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Kauer (US 3,288,625).

Kauer teaches LaB_6 coated articles at col. 1, line 53 to col. 2, line 58. The coated articles inherently possess the instant properties since the same components are used.

Thus, the instant invention lacks novelty.

Claims 1-16 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Aruga et al (US 7,049,358).

Aruga et al teach a solution comprising solvent and fine particles of hexaboride (and silica) and a radiation shielding film thereof in abstract and table 1. Said film inherently possesses the instant properties since the same components are used. Silica caaed hexaboride of Aruga et al would meet the instant claims 7 and 8, for example, since the instant claims do not have any limitation with respect to metal oxides.

Thus, the instant invention lacks novelty.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tae H. Yoon whose telephone number is (571) 272-1128. The examiner can normally be reached on Mon-Thu.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Tae H Yoon
Primary Examiner
Art Unit 1796

THY/June 21, 2008

/Tae H Yoon/